



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,447	08/24/2001	Monty Sharma	112024-0085	3647

21186 7590 04/13/2006

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH
121 S. 8TH STREET
SUITE 1600
MINNEAPOLIS, MN 55402

EXAMINER

NGO, NGUYEN HOANG

ART UNIT PAPER NUMBER

2616

DATE MAILED: 04/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,447

Applicant(s)

SHARMA ET AL.

Examiner

Nguyen Ngo

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 and 8-25 is/are allowed.
- 6) ☒ Claim(s) 5-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This communication is in response to the RCE of 02/02/2006. All changes made to the Claims have been entered. Accordingly, Claims 1-25 are currently pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jin et al. (US 6917617) in view of Internetworking with TCP/IP Volume 1, Principle, Protocols, and Architecture by Comer, hereinafter referred to as Jin and Comer.

Regarding claim 5, Jin discloses the method of using certain bits in the IP header of an IP packet to designate the Quality of Service (QoS) level to be afforded to the packet as

Art Unit: 2663

it passes through a data communication network (a method for providing Quality of Service (QoS) routing of a network packet, col1 lines41-45). Jin further discloses;

that the SSG stores the QoS level associated with the user and acts as an edge router for the user in all subsequent outbound communications forwarded to the Internet. The SSG simply replaces a bit pattern corresponding to the user's QoS level (col4 lines 35-45). That the QoS level mapped into bits of the packet is used by devices (intermediate nodes) such as routers, gateways, and switches within a data communication network by checking the QoS level (checking bits of the IP address associated with the network packet to read a QoS code therein upon receiving the network packet at an intermediate node).

that those with a "higher" QoS level will do better in getting their communications through in congested conditions than those with a "lower" QoS level (forwarding the received network packet from the intermediate node with the QoS indicated by the QoS code, col2 lines 4-17).

Jin however fails to disclose that the QoS code is part of the IP address and included within the unused bits of the IP address. Jin however discloses that three precedence bits of the IP packet header be used to designate the Quality Of Service (QoS) level to be given to packets (col3 lines 39-41) and that the particular bits used are not particularly critical, and that other bits or fields could also be designated to carry the QoS level information (col3 lines35-46), thus providing the motivation to efficiently use

Art Unit: 2663

any unused or non critical bits of a packet header, more specifically any unused bits in the packet address.

Comer however discloses of an IP packet class (class E) with an unused portion reserved for future use (unused portions of the IP address, figure 4.1 of page 60).

It would thus be obvious to a person skilled in the art to incorporate the method of using certain bits in the IP header of an IP packet to designate the Quality of Service (QoS) level disclosed by Jin with the unused reserved portion of bits in an IP address as disclosed by Comer, more specifically, to insert the QoS code into an unused but usable reserved portion of an IP address (QoS becomes part of the IP address and is defined in unused portions of the IP address) to create efficiently in defining QoS levels of any IP packet by using the unused bits in it's header.

Regarding claim 6, Jin and Comer disclose all the limitations of claims 6. More specifically Jin discloses that the SSG stores the QoS level associated with the user and acts as an edge router (an intermediate node) for the user in all subsequent outbound communications forwarded to the Internet (storing the QoS code in the intermediate node, col4 lines 35-45).

Regarding claim 7, Jin and Comer disclose all the limitations of claims 7. More specifically Jin discloses that the Ethernet type includes Ipv4 and Ipv6 (the IP address comprises an IP version 6 address, col1 lines29-30).

Allowable Subject Matter

5. Claims 1-4 and 8-25 allowed.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen Ngo whose telephone number is (571) 272-8398. The examiner can normally be reached on Monday-Friday 7am - 3:30 pm.

Art Unit: 2663

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NN

Nguyen Ngo

United States Patent & Trademark Office
Patent Examiner AU 2663
(571) 272-8398


Ajit Patel
Primary Examiner